CS-8716/BCS033035
Rudiger Suelmann et al
METHOD OF IDENTIFYING FUNGICIDALLY ACTIVE COMPOUNDS
BASED ON FUNGAL MEVALONATE KINASES

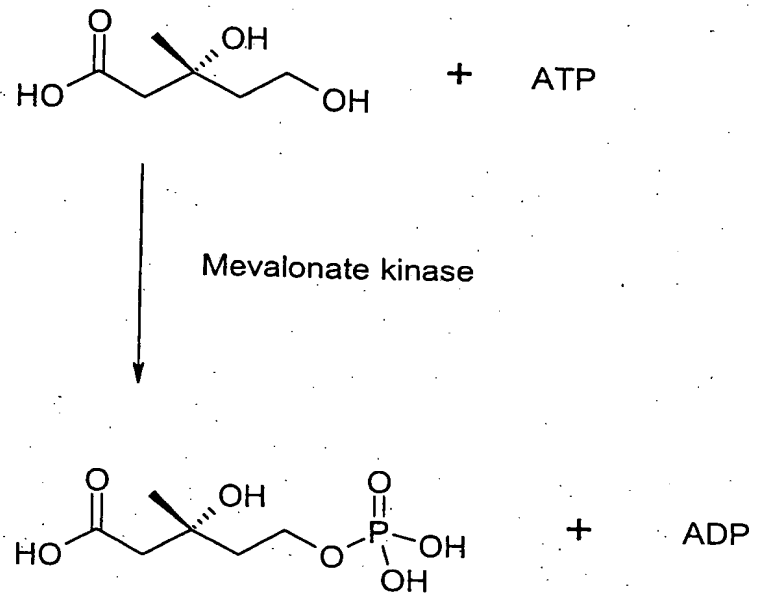

Figure 1

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METHOD OF IDENTIFYING FUNGICIDALLY ACTIVE COMPOUNDS BASED ON FUNGAL MEVALONATE KINASES

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1   ---------------------------------------------------- S cerevisiae
1   ---------------------------------------------------- S pombe
1   ---------------------------------------------------- U maydis
1   MAEQEHNGVNGFHSESEQRNQPVNGDASEAVNGNPSNGLRVTIEESASSA N crassa
1   ---------------------------------------------------- M grisea partially

1   -------------------------MSLPFLTSAPGKVIIFGEHSAVYNK S cerevisiae
1   -------------------------MSKSLIVSSPGKTILFGEHAVVYGA S pombe
1   ---MNRARLETRGGEGEPRSAQDHPPPSSVVVSAPGKVILFGEHAVVHGI U maydis
51  VNGGSPTNSMLTPIRQRMERKKSSPMMPTFMVSAPGKVIVFGEHAVVHGK N crassa
1   ---------------------------------------------------- M grisea partially

26  PAVAASVSALRTYLLISESS-APDTIELDFPDISFNHKWSLNDFNAITED S cerevisiae
26  TALAAAVS-LRSYCKLQTTN--NNEIVIVMSDIGTERRWNLQSLPWQHVT S pombe
48  TAVAASVA-LRCYANVSPRE--DGKISLDLPDLGVIHTWNIADLPWSAVP U maydis
101 AAIAAAIS-LRSYLLVNTLSKSKRTVTLKFPDIDFNHSWNIDELPWKIFQ N crassa
1   -AVAAAIN-LRSYLLVTALSKSKRTITLRFPDIDLIHTWNIDDLPWSTFS M grisea partially

75  QVNSQKLAKAQQATDGLSQELVSLLDPLLAQLS--ES-----FHYHAAFC S cerevisiae
73  VENVQHPASSPNL------DLLQGLGELLKNEE--NG-----LIHSAMLC S pombe
95  -KSIQGGGAVPDS---LDKTLIGAIEKVVGDTVNESE-----RSHAASIA U maydis
150 QPGKKKYYYSLVT--EIDQELVDAVQPFLADVSIDKPADIRKVHQNSAGS N crassa
49  QPSKKKYYYDLVT--SLDPDLMDAIQPHLEPVSSDAPDAQRKVHMSAAAA M grisea partially

118 FLYMEVCLCPHAKN--IKFSLKSTLPIGAGLGSSASISVSLALAMAYLGG S cerevisiae
110 TLYLETSLSSPSQG--CTLTISSQVPLGAGLGSSATISVVVATSLLLAFG S pombe
136 FLVLYMCIAGQADARAQAFVLRSALPIGAGLGSSAALSSCLAAAITILYG U maydis
198 FLYMFLSLGSQSFP-GCQYTLRSTIPIGAGLGSSATLAVCLSAALLLQLR N crassa
97  FLYLEMSLGSHAFP-GGIYTLRSTIPIGAGLGSSASISACLSAALLLQIR M grisea partially

166 LIGSNDLEKLSENDK---HIVNQWAFIGEKCIHGTPSGIDNAVATYGNAL S cerevisiae
158 NIEPFSSNSLQNNKA--LALIEAWSFLGECCIHGTPSGIDNAVATNGGLI S pombe
186 RIPAFGSELSAEHST----HINEWAFLSEKVIHGTPSGVDNTVAVHGGAI U maydis
247 TLSGFHPDQPPEEARLQIERINRWAFVYEMFIHGNPSGVDNTVSTQGKAV N crassa
146 TLSGFHPDQPPDEARVQVERINRWAFVAEMCIHGNPSGVDNTVSTQGKAV M grisea partially

213 LFEKDSHNGTINTNNFKFLDDFPAIPMILTYTRIPRSTKDLVARVRVLVT S cerevisiae
206 AFRKATAH---QSAMKEFLKPKDTLSVMITDTKQPKSTKKLVQGVFELK- S pombe
232 AFTRAHPSNTLTANKMNKLKGFSSFRFLLVDSCVGREGKKLIAHVAAQK- U maydis
297 VFQRTDYN---QPPSVRPLWDFPKLPLLLVDTRTAKSTAHEVAKVATLK- N crassa
196 VFQRLDYA---RPPVVTPMWDFPELPLLVVDTKQAKSTKYEVEKVAKLR- M grisea partially

263 EKFFEVMKPIIDAMGECALQGLEIMTKLSKCKGTDDEAVETNNELYEQLL S cerevisiae
252 ERLFTVIDSIIDAIDGISKSAVLALTSE-------SDKNSS----AKKLG S pombe
281 ESEFTRVNAALARIQTIADSAQLVLIGN-----SGLSRSEQ----VAQLR U maydis
343 KKHFQLVGTILTAIDQVTQSSAQLIEEQ----GFNTEDEES----LSKVG N crassa
242 ETHFKIVNSILDSMDKLTQAATDVLIDE----DFDNEDVES----LQKVG M grisea partially

313 ELIRINHGLLVSIGVSHPGLELIKNLSDDLRIG--STKLTGAGGGGCSLT S cerevisiae
291 EFIVLNQKLIECLGVSHYSIDRV--LQATKSIG--WTKLTGAGGGGCTIT S pombe
322 ELIKQNHSELVGLEVSHASLELIKNKTESFAPDQLATKLTGAGGGGCAVT U maydis
385 EMMTINHGLLVSLGVSHPRLERVREIVDHEGIG--WTKLTGAGGGGCSIT N crassa
284 ELMGMNHGLLVSLGVSHPRLERVREIVDHEGIG--WTKLTGAGGGGCSIT M grisea partially
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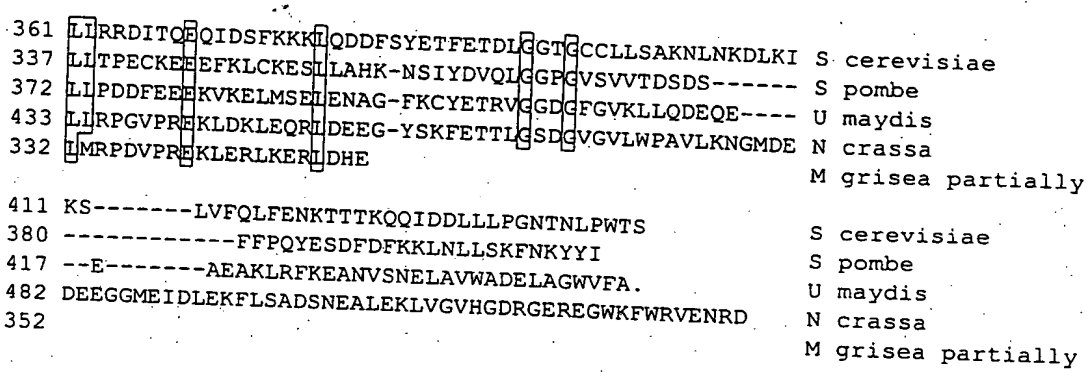
361 LLRRDITQEQIDSFKKKLQDDFSYETFETDLGGTGCCLLSAKNLNKDLKI S cerevisiae
337 LLTPECKEEEFKLCKESLLAHK-NSIYDVQLGGPGVSVVTDSDS------ S pombe
372 LLPDDFEEEKVKELMSELENAG-FKCYETRVGGDGFGVKLLQDEQE---- U maydis
433 LLRPGVPREKLDKLEQRLDEEG-YSKFETTLGSDGVGVLWPAVLKNGMDE N crassa
332 LMRPDVPREKLERLKERLDHE
M grisea partially
411 KS-------LVFQLFENKTTTKQQIDDLLLPGNTNLPWTS S cerevisiae
380 ------------FFPQYESDFDFKKLNLLSKFNKYYI S pombe
417 --E-------AEAKLRFKEANVSNELAVWADELAGWVFA. U maydis
482 DEEGGMEIDLEKFLSADSNEALEKLVGVHGDRGEREGWKFWRVENRD N crassa
352
M grisea partially

Figure 2

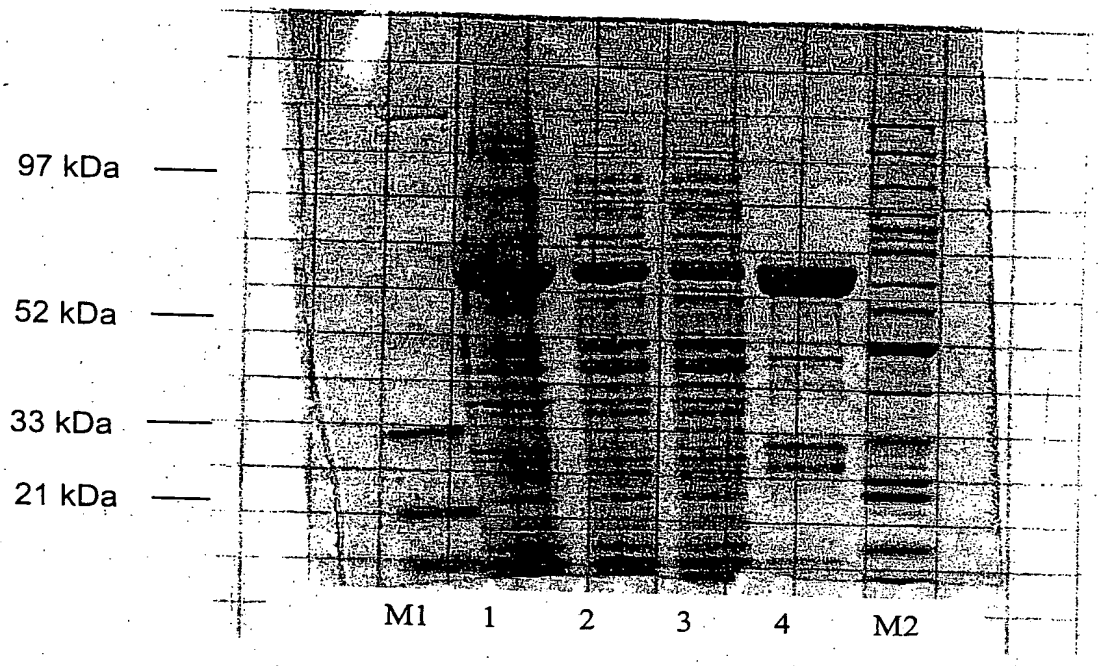

Figure 3

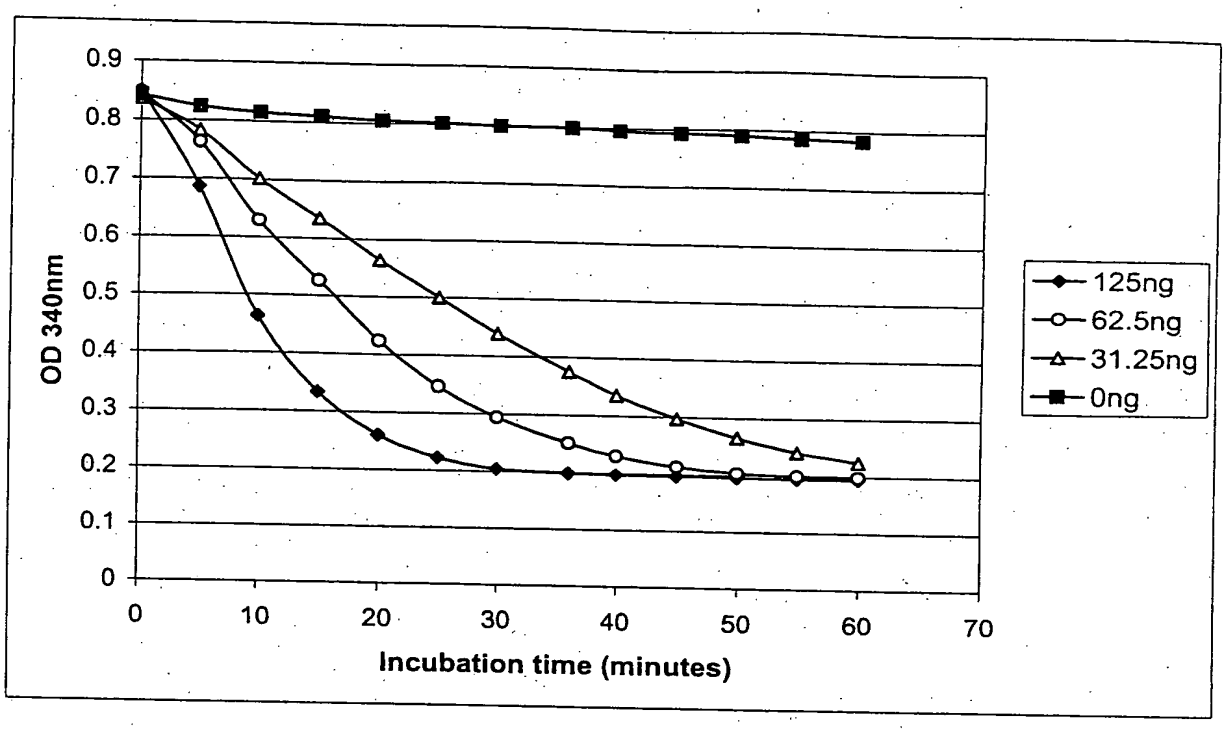

Figure 4